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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,698	05/23/2001	David J. Corisis	3070.2US (96-1079.2)	1726

24247 7590 05/30/2002

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EXAMINER

GRAYBILL, DAVID E

ART UNIT

PAPER NUMBER

2827

DATE MAILED: 05/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/864,698

Applicant(s)

CORISIS ET AL.

Examiner

David E Graybill

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-17 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 there is insufficient antecedent basis for the language, "said intended die-attach location," "said first side of said intended die-attach location," "said first group of lead fingers extending from said first side of said intended die-attach location toward said another, single side of said lead frame," "said second opposing side of said intended die-attach location," and, "said second group of lead fingers extending from said second opposing side of said intended die-attach location toward said another, single side of said lead frame."

Claims 1-17 have not been rejected over the prior art because, in light of the 35 U.S.C. 112 rejections supra, there is a great deal of confusion and uncertainty as to the proper interpretation of the limitations of the claims; hence, it would not be proper to reject the claims on the basis of prior art. As stated in *In re Steele*, 305 F.2d 859, 134 USPQ 292 (CCPA

1962), a rejection should not be based on considerable speculation about the meaning of terms employed in a claim or assumptions that must be made as to the scope of the claims. See also MPEP 2173.06.

Claims 18-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bozzini (5113240) and Lee (5089878).

At column 3, lines 6-62, Bozzini teaches the following:

18. A vertical surface mount lead frame to be assembled to a semiconductor die, comprising: a lead frame 10 having at least a first group of lead fingers 12 and a second group of lead fingers 12 to respectively extend from first and second opposing sides of an intended die-attach location 15 to another, single side of said lead frame in a substantially mutually parallel configuration.

21. The assembly of 18, wherein said lead frame includes a die-attach paddle 15 to which said semiconductor die is attached.

22. The assembly of 18, wherein said die-attach location comprises a die-attach paddle.

However, Bozzini does not appear to explicitly teach a first voltage reference plane to overlie in immediate proximity said first group of lead fingers and in electrical isolation therefrom, said first voltage reference plane overlying at least

the turning portion of said first group of lead fingers extending from said first side of said intended die-attach location toward said another, single side of said lead frame;; and a second voltage reference plane to overlie in immediate proximity said second group of lead fingers and in electrical isolation therefrom, said second voltage reference plane overlying at least the turning portion of said second group of lead fingers extending from said second opposing side of said intended die-attach location toward said another, single side of said lead frame, or the following:

19. The assembly of 18, wherein said first voltage reference plane and said second voltage reference plane are adhered to at least some of the lead fingers of said first group of lead fingers and said second group of lead fingers, respectively.

20. The assembly of 19, wherein said first voltage reference plane and said second voltage reference plane are adhered directly via a non-conductive adhesive to said at least some of the lead fingers of said first group of lead fingers and said second group of lead fingers, respectively.

23. The assembly of 18, wherein at least one of said first voltage reference plane and said second voltage reference plane includes projections extending away from a direction of said

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immediate proximity of said first group of lead fingers and said second group of lead fingers, respectively.

24. The assembly of 18, wherein said first voltage reference plane and said second voltage reference plane extend over at least about fifty percent of a surface area of said at least said first group of lead fingers and said second group of lead fingers, respectively.

25. The assembly of 18, wherein said first voltage reference plane and said second voltage reference is separated from said at least said first group of lead fingers and said second group of lead fingers, respectively, by an insulating adhesive structure.

26. The assembly of 25, wherein said insulating adhesive structure comprises an insulating film having an adhesive on opposing surfaces thereof, one surface of said opposing surfaces being adhered to at least one of said first group of lead fingers and said second group of lead fingers and another surface of said opposing surfaces being adhered to at least one of said first voltage reference plane and said second voltage reference plane.

Regardless, as cited supra, Lee teaches a first voltage reference plane to overlie in immediate proximity a first group of lead fingers and in electrical isolation therefrom; and a

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second voltage reference plane to overlie in immediate proximity a second group of lead fingers and in electrical isolation therefrom, wherein the first voltage reference plane and the second voltage reference plane are adhered to at least some of the lead fingers of the first group of lead fingers and the second group of lead fingers, respectively, the first voltage reference plane and the second voltage reference plane are adhered directly via a non-conductive adhesive to the at least some of the lead fingers of the first group of lead fingers and the second group of lead fingers, respectively, the at least one of the first voltage reference plane and the second voltage reference plane includes projections extending away from a direction of the immediate proximity of the first group of lead fingers and the second group of lead fingers, respectively, the first voltage reference plane and the second voltage reference plane extend over at least about fifty percent of a surface area of the at least the first group of lead fingers and the second group of lead fingers, respectively, the first voltage reference plane and the second voltage reference is separated from the at least the first group of lead fingers and the second group of lead fingers, respectively, by an insulating adhesive structure, and the insulating adhesive structure comprises an insulating film having an adhesive on opposing surfaces thereof, one

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surface of the opposing surfaces being adhered to at least one of the first group of lead fingers and the second group of lead fingers and another surface of the opposing surfaces being adhered to at least one of the first voltage reference plane and the second voltage reference plane. Furthermore, it would have been obvious to combine the product of Lee with the product of Bozzini because it would reduce impedance.

Applicant's amendment and remarks filed 3-5-2 are addressed in the rejection supra and are further addressed infra.

Applicant contends that in the rejection of claims 18-26 Bozzini does not teach the motivation to combine the applied prior art, and Lee does not teach a voltage reference plane arrangement that would be workable on a vertical surface mount leadframe.

These contentions are respectfully deemed to be unpersuasive because Bozzini is not relied on for the motivation to combine the applied prior art, and Lee is not relied on for the teaching of a voltage reference plane arrangement that would be workable on a vertical surface mount leadframe.

Also, applicant alleges that the combination of Bozzini and Lee would be inoperable. However, applicant provides no factual support for this allegation. Hence, the allegation is

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respectfully deemed to be unpersuasive because it is of no probative value. See MPEP 716.01(c).

The prior art made of record and not applied to the rejection is considered pertinent to applicant's disclosure. It is cited primarily to show products similar to the product of the instant invention.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any telephone inquiry of a general nature or relating to the status (MPEP 203.08) of this application or proceeding should be directed to the group receptionist whose telephone number is 703-308-1782.

Any telephone inquiry concerning this communication or earlier communications from the examiner should be directed to David E. Graybill at (703) 308-2947. Regular office hours: Monday through Friday, 8:30 a.m. to 6:00 p.m.

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The fax phone number for group 2800 is 703/305-3431.



David E. Graybill
Primary Examiner
Art Unit 2827

D.G.
21-May-02